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Gary Johnson

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EXAMINER

THERIAULT, STEVEN B

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/686,990	Applicant(s) JOHNSON, GARY	
	Examiner STEVEN B. THERIAULT	Art Unit 2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-19, 33 and 34 is/are allowed.
- 6) ☒ Claim(s) 1-15, 20-32, 35-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the following communications: RCE filed 01/02/2009
2. Claims 1 -67 are pending in the case. Claims 1, 14, 20, 41, 51, and 65 are the independent claims. The applicant is invited to arrange for an interview to discuss possible modification to the remaining claims to advance prosecution.

Allowable Subject Matter

3. Claims 16-19, 33-34 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Claim 16 represents a combination of claimed elements that have individual elements in the method claims 1-5, there are differences when considering the claim as a whole. First claim 16 provides an additional limitation of "defining a set of speed effects for the video clip". While claim 1 recites receiving a set of effects through a set of modifications of a user selectable graph, this limitation is not seen as defining the effect, as it is seen as applying a defined effect to the graph. Second, claim 4 recites converting user input through modification to the graph to define speed effect definitions, claim 16 recites converting the modifications into an effect. Therefore, claim structure for claims 16-19 appear to be different than claims 1-5, etc. The prior art of Reid et al teaches a method that allows a user to adjust parameters on a graph while editing a video clip (See column 9, lines 1-6). Reid does not show applying speed effects to a video clip. He et al teaches allowing the user to apply effects to a video clip where the effect can be applied to a graph (See figure 4 and Para 49). However, while He allows the user to adjust speed settings on a graph while looking at a real time video clip, He does not allow the user to convert the manipulations on the graph into a set of speed effects. The prior art of Iizuka teaches providing a time-scale control for adjusting the playback of motion picture data. Iizuka allows the user to compile a set of effects that are applied to a score at intervals during the play of a movie (See Figure 8). Iizuka does not provide a real-time presentation of a video clip that accounts for the effects applied to the clip.

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Therefore, the prior art does not appear to suggest the features of claims 16-19, 33 and 34 and the claims are allowed over the prior art.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 and 20-25 and 41-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and for not meeting the tie to another apparatus under *in re: Bilski*. The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

With regard to **claims 41-50**, the GUI as recited appears to be software in the form of an interface but does not recite the structure for execution of the interface and is considered software. The structure of the system on page 25-26 does not appear to be claimed, as there is no mention of a processor or device to realize the execution and store the interface as recited in claims 41-50. Therefore, consistent with MPEP 2106, the claimed subject matter is not currently believed to be limited to that which falls within a statutory category of invention, because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it appears to be software per se.

With regard to **claims 1-5 and 20-25**, claims 1-5 and 20-25 the method claims do not appear to positively recite a device or piece of hardware that positively ties the method claims to a particular apparatus. One reasonable interpretation for the method claims is that the "displaying" feature in the claim represents a step to display but does not recite actually displaying the item. To eliminate possible interpretations from further *Bilski* rulings or guidelines it is suggested that the claims be amended to simply recite "displaying on a display a real-time presentation..." etc. With the specific hardware element recited the claims eliminate all doubt that the method is executed by a particular apparatus.

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Claim Rejections - 35 USC § 103

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1 – 15, 20-27, 30-32, 36-37, 41-60, 63-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (Patent No. 6,324,335) in view of Fayan et al. (Hereinafter Fayan) U.S. patent publication No.2003/0164845 published Sept. 4, 2003.**

In regard to **Independent claim 1**, Kanda teaches a computer-implemented method for specifying speed effects for playing a video clip comprising

- Receiving a set of speed effects (see e.g., Fig. 3, Fig. 4 and Fig. 13; i.e., picture mode and timeline mode) for the video clip (see e.g., col. 29, lines 11 – 16; i.e., reproducing speed entered using dedicated controller 2e for a video clip)

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- Displaying in real-time (see e.g., col. 2, lines 10 – 13; i.e., editing, recording, and reproducing is performed in at the same time and in real-time) a presentation of the video clip that accounts for the set of speed effects defined for the video clip (see e.g., col. 28, lines 49 – 65; i.e., 0.5 playback speed is applied to a broadcast scene of a pitcher throwing a ball).

Kanda does not expressly teach:

- Through a set of modifications of a use selectable graph that represents a playback time in relation to a content time of the video clip

However, in the same graphical interface for video editing field, Fayan teaches an editor that can be incorporated into the traditional timeline editing function that shows the user manipulating a graph (See Figure 5 and 7) to incorporate a speed curve for the purposes of applying speed effects to a video and audio clip where the playback time is shown as output time and the input time is the content time (See also Para 0031-0034 and 0037). Fayan shows where the graph function allows the user to select points on the graph and apply speed changes to the audio waveform (See Para 0025 and 0032). Kanda and Fayan are both editing applications for the purposes of allowing the user to edit both audio and video clips to provide changes to the video production. They both teach applying speed changes to video and audio and they both teach a user interface to accomplish the task.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Fayan and Kanda in front of them, to modify the system to Kanda to include the graph function that allows the user to adjust specific sections of the audio waveform. The suggestion to combine comes from Fayan that a typical video editing system shown in Figure 1, contains a timeline that represent the video and audio tracks (See also Kanda Figure 4, that also shows a timeline mode). Fayan teaches that a user interface that allows for video compositing and audio editing may contain a graph function (See Para 0024 and 0034) for the purposes of retiming the speed of the audio and video tracks to apply an effect to the audiovisual work.

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With regard to dependent claim 2, Kanda teaches the method of claim 1, wherein the set of speed effects includes only one speed effect (see e.g., col. Fig. 14 and col. 28, lines 49 – 65).

With regard to dependent claim 3, Kanda teaches the method of claim 1, wherein the set of speed effects includes only a plurality of speed effects that specify a plurality of playback speeds (see e.g., col. 28, lines 49 – 65 and col. 32, lines 4 – 11; i.e., a plurality of speed effects, such as a frame unit where a pitcher is throwing a ball is set to a slow reproducing speed of 0.5 or a frame unit of a batter hitting a ball is set to a reproducing speed of 0.01) for a plurality of intervals (see e.g., col. 13, lines 63 – 67 and col. 29, lines 59 – 63; i.e., frame unit).

With regard to dependent claim 4, Kanda teaches the method of claim 1 further comprising: receiving user input regarding speed effects (see e.g., col. 30, lines 22 – 29; i.e., dedicated controller 2e, search dial 400, and motion lever 401); defining the set of speed effects wherein defining the speed effects comprises converting the user input into a set of speed effect definitions (see e.g., col. 30, lines 47 – 55; i.e., learn button 402 defines and stores reproducing speed). Kanda shows the process of using a time-runner icon displayed in the speed-setting mode as to where a speed-changing event occurs in the frame. Therefore, the user can apply a single effect or multiple effects by interacting with the application that will show (25ha) as a set of effects.

With regard to dependent claim 5, as indicated in the above discussion, Kanda in view of Fayan teaches every element of claim 4.

Kanda teaches the method wherein receiving user input (see e.g., col. 28, lines 49 – 58 and col. 29, lines 1 – 10; i.e., reproducing speed of an event can be set by using reproducing speed setting area 25). Kanda teaches a timeline display that can be considered a graph (see e.g., Fig. 13 and col. 29, lines 59 – 63) that also allows a user to modify the speed of the video and audio clip (see e.g., Fig. 13 and col. 29, lines 1 – 29; i.e., learn button 25a, speed fit button 25b, normal reproducing speed setting button 25c, etc.). Kanda does not expressly teach a) providing a graph that represents the playback time of the video clip in relation to the content time of the video clip b) allowing the user to modify the speed effects by modifying the graph. However, this limitation

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would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan, because Fayan teaches that, within a typical audiovisual editing application, speed changes can be applied by allowing a user to interact with a graph. The user selects a point on the graph to apply a function to the graph. The graph is displayed with the input time on one axis and the output time on another (See Figure 7).

With regard to dependent claim 6, Kanda teaches the method of claim 5, wherein allowing the user to modify the graph (see e.g., Fig. 5 and col. 14, lines 51 – 58; i.e., scrolling the event display to the position specified by edit bar 40i) comprises allowing the user to select a portion of that graph that appears at a first location (see e.g., col. 14, lines 51 – 58; i.e., a first position is an event position displayed on time-line display area 40, prior to scrolling the event display to the edit bar 40i) within a window containing the graph (see e.g., Fig. 4) and to move the selected portion to a second location within the window (see e.g., Fig. 5 and col. 14, lines 51 – 58; i.e., moving the selected portion to a second location corresponds to the moving position or cutting-into position of an event that is adjusted by using scroll button 40g or 40h to edit bar 40i).

With regard to dependent claim 7, Kanda teaches the method of claim 1, wherein said displaying comprises displaying the video presentation without rendering the presentation to a data storage (see e.g., col. 28, lines 49 – 65; i.e., reproducing speed is set for a frame unit, such as 0.5 or 0.01, wherein the frame event is a real-time baseball broadcasting).

With regard to dependent claim 8, Kanda teaches the method further comprising: after specifying the speed effects for the video clip (see e.g., col. 33, lines 5 – 22; i.e., reproducing speed is inputted by motion controller 401 or search dial 400 for a desired event), rendering the video clip to a data storage (see e.g., col. 33, lines 5 – 22; i.e., reproducing speed of a desired event is stored in RAM 10b).

With regard to dependent claim 9, Kanda teaches the method wherein the video clip (see e.g., col. 9, line 21; i.e., video data) has a plurality of frames (see e.g., col. 9, lines 14 – 17; i.e., video

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data has a plurality of frames, such as forwarding the video data frame by frame), wherein displaying comprises:

- a) Selecting a first frame (see e.g., Fig. 3 and col. 10, lines 27 – 61; i.e., a mark in button 27c is used to mark a first frame) for displaying at a first playback time (see e.g., Fig. 3 and col. 11, lines 8 – 23; i.e., display area will be used to display the clipped image);
- b) Displaying the first frame for display at the first playback time (see e.g., Fig. 3 and col. 11, lines 8 – 37; i.e., display area will be used to display the first frame and time code 28b);
- c) Selecting a second frame for display at a second playback time (see e.g., Fig. 3 and col. 10, lines 27 – 61; i.e., a plurality of in point and outpoint are selected for displaying a first and second playback time);
- d) Displaying the second frame for display at the second playback time (see e.g., Fig. 3 and col. 10, lines 27 – 61; i.e., second frame for second playback corresponds to clip 05 displayed in clip displaying area 28).

Kanda expressly teaches that the time-scale display area can be adjusted to show the temporal length of each event and where a user setting can be utilized to show **any** number of frames as the user desires (See column 13, lines 60-67).

With regard to dependent claim 10, Kanda teaches the method wherein the video clip (see e.g., col. 9, line 21; i.e., video data) has a plurality of frames (see e.g., col. 9, lines 14 – 17; i.e., video data has a plurality of frames, such as forwarding the video data frame by frame), wherein displaying comprises:

- a) Selecting a first frame for display for a first playback duration (see e.g., col. 31, lines 39 – 45; i.e., preview button 415 is used to select an event or program to be displayed on displaying area 23a) based on the defined set of speed effects (see e.g., col. 32, lines 39 – 67; i.e., learn button is pushed and the CPU 10 stores the reproducing speed of the event or program into RAM 10b);
- b) Displaying the first frame during the first playback duration (see e.g., col. 13, lines 10 – 23; i.e., an event or program is selected and displayed on reproducing video screen 23a in still image, wherein the preview button 32 is clicked and recorder 3 starts reproducing the event or program);

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c) Selecting a second frame for a second playback duration (see e.g., Fig. 3 and col. 31, lines 39 – 45; i.e., preview button 415 is used to select an event or program to be displayed on displaying area 23a, wherein depicted in Fig. 3 are a plurality of events and programs) based on the defined set of speed effects;

d) Displaying the second frame during the second playback duration (see e.g., col. 13, lines 10 – 23; i.e., an event or program is selected and displayed on reproducing video screen 23a in still image, wherein the preview button 32 is clicked and recorder 3 starts reproducing the second event or program).

Kanda expressly teaches that the time-scale display area can be adjusted to show the temporal length of each event and where a user setting can be utilized to show **any** number of frames as the user desires (See column 13, lines 60-67).

With regard to dependent claim 11, Kanda teaches the method further comprising:

a) Before displaying the first frame, decompressing the first frame (see e.g., col. 27, lines 66 – 67 and col. 28, lines 1 – 15; i.e., the selected event of program is supplied to decoder 305, which decodes the compression coded video signal and displayed on display area 23a);

b) Before displaying the second frame, decompressing the second frame (see e.g., col. 27, lines 66 – 67 and col. 28, lines 1 – 15; i.e., the selected event of program is supplied to decoder 305, which decodes the compression coded video signal and displayed on display area 23a).

With regard to dependent claim 12, Kanda teaches the method wherein the video clip is a composite of a plurality of video clips (see e.g., Fig. 3 and col. 11 – 23).

With regard to dependent claim 13, Kanda teaches the method of claim 12, wherein the video clip includes at least one audio track (see e.g., Fig. 5 and col. 14, lines 62 – 67; audio edit area 40e and 40f).

With respect to **claims 14-15**, claims 14-15 reflect the computer readable medium comprising computer readable instructions for performing the method steps of claims 1, and 4 respectively, and are rejected along the same rationale.

In regard to Independent claim 20, Kanda teach the graphical user interface ("GUI") method for specifying speed effects for a video presentation the method comprising:

- As part of the GUI, providing a GUI graph of the playback speed of the video presentation (see e.g., Fig. 13 and col. 29, lines 59 – 63; i.e., moving speed of icon 25ga in reproducing speed setting area 25 of time-line-scale allows visual confirmation of reproducing speed in certain parts of an event, wherein reproducing speed setting area 25 corresponds to the graph), (see e.g., Fig. 4) (see e.g., Fig. 5 and Fig. 13)
- b) Allowing a user to modify the graph (see e.g., col. 15, lines 1 – 2; modifying the time-line display area 40 corresponds to displaying the fetched audio data) by selecting a portion of the graph (see e.g., col. 14, lines 62 – 67; i.e., clicking audio button 40ea and 40fa) and performing a GUI drag operation (see e.g., col. 15, lines 62 – 67; i.e., dragging the event from event displaying area 29 to time-line display area 40).

Kanda expressly teaches the process of allowing the user to drag events with the editing application to be freely rearranged by the user to achieve or produce a program (See column 12, lines 31-47).

Kanda does not expressly teach

- Providing a GUI graph of a playback time of the video presentation relative to the content time
- Allowing a user to specify a speed effect for the video presentation by selecting and modifying a portion of the graph

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However, in the same graphical interface for video editing field, Fayan teaches an editor that can be incorporated into the traditional timeline editing function that shows the user manipulating a graph (See Figure 5 and 7) to incorporate a speed curve for the purposes of applying speed effects to a video and audio clip where the playback time is shown as output time and the input time is the content time (See also Para 0031-0034 and 0037). Fayan shows where the graph function allows the user to select points on the graph and apply speed changes to the audio waveform (See Para 0025 and 0032). Kanda and Fayan are both editing applications for the purposes of allowing the user to edit both audio and video clips to provide changes to the video production. They both teach applying speed changes to video and audio and they both teach a user interface to accomplish the task.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Fayan and Kanda in front of them, to modify the system to Kanda to include the graph function that allows the user to adjust specific sections of the audio waveform. The suggestion to combine comes from Fayan that a typical video editing system shown in Figure 1, contains a timeline that represent the video and audio tracks (See also Kanda Figure 4, that also shows a timeline mode). Fayan teaches that a user interface that allows for video composting and audio editing may contain a graph function (See Para 0024 and 0034) for the purposes of retiming the speed of the audio and video tracks to apply an effect to the audiovisual work.

With regard to dependent claim 21, Kanda teaches the method further comprising providing a set of GUI operations for selecting portions of the graph and performing drag operations (see e.g., col. 15, lines 3 – 25; i.e., the user can select portions of the time-line by moving each event to a desired position within the time-line by a click and drag operation. The user is further allowed to select desired portions of the time-line by using scroll buttons 40g and 40h). However, Kanda does not teach selecting the graph to move a specific frame keeping the playback time in relation

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to the content time. Fayan teaches the process of allowing the user to navigate the keyframes with GUI controls (See Para 0031).

With regard to dependent claim 22, as indicated in the above discussion, Kanda in view of Fayan teaches every element of claim 20.

Kanda teach the method wherein the graph is defined along at least two axes (see e.g. Fig. 13 and col. 29, lines 39 – 42 and col. 30, lines 5 – 8; i.e., the first axis corresponds to the horizontal time-line scale 25f and the second axis corresponds to the vertical time-code 25i and 25j), wherein one axis represents time during a playback (see e.g., col. 29, lines 43 – 63; i.e., icon 25ga is an icon that moves along the horizontal axis of time-line scale 25f, wherein the movement of icon 25ga represents the position of the event or program during playback) and the other axis represents time within the video presentation (see e.g., col. 30, lines 5 – 8; i.e., the vertical axis of 25i and 25j corresponds to the time of the event). Kanda does not expressly teach where the playback time axis represents time during playback and the content time axis represents the time within the video. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan, because Fayan teaches that, within a typical audiovisual editing application, a graph is displayed with the input time on one axis and the output time on another (See Figure 7). Fayan teaches the graphical function of manipulating the speed of an audio or video file can be manipulated by the user in the user interface.

With regard to dependent claim 23, Kanda teaches the method wherein the selected portion of the graph is a selected GUI item called a keyframe (see e.g., Fig. 5 and col. 15, lines 44 – 53; i.e., “Event 01”, “Event 02”, “Event 03”, and “Event 04” are keyframes). In the alternative, Fayan teaches the user can select any number of keyframes along the graph (See Para 0031) and therefore, an obvious modification to Kanda is to allow the user to select the keyframes from the

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graph of Fayan because Fayan states that the graphic function can be a part of the typical video editing system that displays a timeline.

With regard to dependent claim 24, Kanda teaches the method of claim 23, wherein at any time, the keyframe (see e.g., Fig. 13 and col. 29, lines 30 – 34; i.e., the keyframe corresponds to the specified event or program depicted as Event No. 008” displayed in event-number displaying part 25d) has a value along the playback-time axis (see e.g., Fig. 13 and col. 29, lines 35 – 42; i.e., “Event No. 008” has a value along the axis playback-time of “00:00:01:59”) and a value along the content-time axis (see e.g., Fig. 13 and col. 30, lines 5 – 8), wherein when the keyframe is selected (see e.g., col. 29, lines 1 – 10; i.e., an event or program is selected and reproducing speed button 22h is clicked), the keyframe has a first content-time value (see e.g., Fig. 13 and col. 30, lines 5 – 8; i.e., the vertical axis of 25i and 25j corresponds to the time of the event, wherein the first-content time value corresponds to in-point time-code displaying part 25i), the method comprising: when the keyframe is selected, displaying a frame that appears in the video presentation (see e.g., col. 31, lines 39 – 45; i.e., preview button 415 is used to select an event or program to be displayed on displaying area 23a) at the first content-time value (see e.g., col. 13, lines 10 – 23; i.e., an event or program is selected and displayed on reproducing video screen 23a in still image, wherein the preview button 32 is clicked and recorder 3 starts reproducing the event or program).

With regard to dependent claim 25, as indicated in the above discussion, Kanda in view of Fayan teaches every limitation of claim 24. Kanda expressly teaches the process of allowing the user to drag events with the editing application to be freely rearranged by the user to achieve or produce a program (See column 12, lines 31-47).

Kanda does not expressly teaches the method further comprising the content-time value of the keyframe changes during a drag operation, displaying the frame in the video presentation that corresponds to the content-time value of the keyframe. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan,

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because Fayan describes a process where the time values change when the user changes the shape of the speed curve and therefore when the user changes the slope of the curve then the time value for the keyframe will change (See Para 0034).

With regard to claims 26-27 and 30-32, as indicated in the above discussion, Kanda in view of Fayan teaches every limitation of claim 24. Kanda expressly teaches the process of allowing the user to drag events with the editing application to be freely rearranged by the user to achieve or produce a program (See column 12, lines 31-47).

Kanda does not expressly teach the method further comprising displaying a graphical representation of the video presentation when the key frame is selected and wherein a drag operation comprises moving the graphical representation along the playback-time axis when the drag operation is along the playback-time axis or where moving the keyframe along the content-time axis when the drag operation is along the content-time axis. However, these limitations would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan, because Fayan shows a process of allowing the user to manipulate a position graph and/or speed graph simultaneously where the information shown in the speed and position graphs (see figure 7) can be the playback time and the content time (See Para 0031, control to navigate keyframes). Further, the information can be plotted on the same axis or different axis (See figures 5- 7). Moreover, Fayan teaches that various timing parameters can be specified by the user to accomplish the re-timing effect (See Para 0034) and that different position curves can be specified (See Para 0037).

With respect to **dependent claims 36 - 37**, as indicated in the above discussion, Kanda in view of Fayan teaches every element of claim 20.

Kanda does not expressly teach the method wherein said GUI graph represents said playback-time relative to said content-time as a curve on said graph and wherein said GUI graph simultaneously shows said relationship at a plurality of points in a playback time. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in

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view of Fayan, because Fayan shows a curve on the graph (See Figures 3-6) and displays multiple points on the curve and shows the relationship to the playback time (See figure 7) as the output time is the time of the media file originally recorded.

In regard to claims **41-47**, claims 41-47 reflect the apparatus comprising computer readable instructions for performing the method steps of claims 20-23, 26-27, 32 and 36, respectively, and are rejected along the same rationale.

With respect to **dependent claims 48 – 50**, as indicated in the above discussion, Kanda in view of Fayan teaches every element of claims 41 and 47.

Kanda does not expressly teaches the GUI wherein a slope of a portion of the curve determines a playback speed of a corresponding portion of a content clip and wherein a negative slope of a portion of the curve determines that the corresponding portion of the content clip is playing backward and further comprising a set of controls for setting a curvature of said curve. e.

However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan, because Fayan shows a curve on the graph (See Figures 3-6) and displays multiple points on the curve and shows the relationship to the playback time (See figure 7) as the output time is the time of the media file originally recorded. Fayan also teaches the slope is determined by the user through the interface (See Para 0025). Fayan also teaches the system uses several numerical methods to generate the curve (See Para 0026) that can determine the slope of the playback speed as Fayan clearly teaches a mechanism to display an adjusted playback speed for a given frame in relationship to the actual content (See Para 0019 and Figures 5-7 and Para 0028). Fayan shows a negatively sloped curve in figure 5 that directly related to the position curve beside it (See Para 0030).

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With respect to **claims 51-60, and 63-64**, claims 51-60, and 63-64 reflect the computer readable medium comprising computer readable instructions for performing the method steps of claims 20-21, 23-27, 30-32 and 36-37, respectively, and are rejected along the same rationale.

With respect to **claims 65-67**, claims 65-67 reflect the system comprising computer readable instructions for performing the method steps of claims 28-29, respectively, and in further view of the following, are rejected along the same rationale. Fayan teaches that the re-timing process is also called a blending process as two frames can be adjusted in time to overlap. Kanda also teaches an overlay feature to allow for blending and Kanda teaches a frame buffer (See column 4, lines 60-67 and column 26, lines 14-20).

7. **Claims 28-29, 38-40 and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (Patent No. 6,324,335) in view of Fayan et al. (Hereinafter Fayan) U.S. patent publication No.2003/0164845 published Sept. 4, 2003, in further view of Klingler et al. (hereinafter Klingler) U.S. Patent No. 5682326 issued Oct. 28, 1997.**

With regard to claims 28- 29, as indicated in the above discussion, Kanda in view of Fayan teach every limitation of claim 24.

Kanda does not teach the method wherein performing the drag operation comprises moving the keyframe along the playback-time axis when -a) the drag operation is along the playback-time axis; and b the user is pressing a particular keyboard key and not pressing a key on the keyboard. Fayan shows a process of allowing the user to manipulate a position graph and/or speed graph simultaneously where the information shown in the speed and position graphs (see figure 7) can be the playback time and the content time (See Para 0031, control to navigate keyframes). Further, the information can be plotted on the same axis or different axis (See figures 5- 7). Moreover, Fayan teaches that various timing parameters can be specified by

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the user to accomplish the re-timing effect (See Para 0034) and that different position curves can be specified (See Para 0037). Kanda in view of Fayan does not expressly teach that video operations can be executed from the keyboard. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Klingler, because Klingler teaches a video editor that allows the user to manipulate a timeline, similar to those taught in Fayan and Kanda and because Klingler teaches the conventional techniques for performing input and output functions in interfaces that perform video editing include keyboard operations (See column 7, lines 1-10). The motivation to combine would be to allow the user to input information and to control the functions of the interface, as suggested by Klingler (See column 7, lines 8-10).

With respect to **dependent claims 38-40**, as indicated in the above discussion, Kanda in view of Fayan in further view of Klingler teaches every element of claim 28.

Kanda does not expressly teach the method wherein moving the keyframe along the playback-time axis comprises moving the keyframe without changing the first content-time value, while displaying the frame, in the video presentation, that corresponds to the content-time value of the keyframe, and wherein moving the keyframe further comprises setting a new playback-time value for said keyframe. wherein moving the keyframe along the playback-time axis comprises moving the keyframe without changing the first content-time value, while displaying the frame, in the video presentation, that corresponds to the content-time value of the keyframe. However, these limitations would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Fayan, because Fayan shows a process of allowing the user to manipulate a position graph and/or speed graph simultaneously where the information shown in the speed and position graphs (see figure 7) can be the playback time and the content time (See Para 0031, control to navigate keyframes). Further, the information can be plotted on the same axis or different axis (See figures 5- 7). Moreover, Fayan teaches that various timing parameters can be specified by the user to accomplish the re-timing effect (See Para 0034) and that different position curves can be specified (See Para 0037) and Fayan teaches the anchor frame can be

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selected by the user in many ways, which creates a scenario for an anchor frame (key frame) to be specified a specific point that would change the specific frame time but not the content time (See Para 0019). As Fayan states, the retiming may or may not effect the duration of the clip. Fayan also teaches a traditional timeline editor that would allow the user to see the clip while they perform the editing of the timing effect (See figure 1) and Kanda (see Figure 13).

With respect to **claims 61-62**, claims 61-62 reflect the computer readable medium comprising computer readable instructions for performing the method steps of claims 28-29, respectively, and are rejected along the same rationale.

8. **Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanda et al. (Patent No. 6,324,335) in view of Fayan et al. (Hereinafter Fayan) U.S. patent publication No.2003/0164845 published Sept. 4, 2003, in further view of Gauthier et al. (hereinafter Gauthier) U.S. Publication No. 20040012594 published Jan. 2, 2004 and filed Dec. 6, 2002.**

With respect to **dependent claim 35**, as indicated in the above discussion, Kanda in view of Fayan teaches every element of claim 14.

Kanda in view of Fayan does not teach a computer readable medium wherein said set of instructions for generating said set of blended frames comprises instructions for:

a set of instructions for generating sequential frames of said set of blended frames by changing a magnitude of said first and second blending parameters.

However, Gauthier teaches a process of using parameter values during the video editing blending process (See Para 0139). Gauthier also teaches were the a key frame to a length value and

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keeps the speed curve constant by using constant value interpolation that is a multiplier effect along the speed curve. Gauthier teaches the magnitude can be changed in a non-linear manner using the directional data (See figure 16), that would allow for changes in magnitude along the speed curve. Kanda, Gauthier, and Fayan are analogous art because they all provide non-linear editing and they all present an editing interface and they all teach a process of manipulating video to achieve a particular effect on the video production.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Kanda, Fayan, and Gauthier in front of them, to modify the system of Kanda to include a selectable graph and to have the editing system allow for blending multiple clips by using a blending parameter. The motivation to combine Kanda, Fayan, and Gauthier comes from the suggestion in Gauthier to use a process similar to video editing or move making (See Para 0140).

Response to Arguments

9. Applicant's arguments with respect to claims 1-5, 20-32, 35-67 applicant's arguments are not persuasive.

Applicant does not provide any new arguments to consider with the filing of the RCE. Applicant appears to rely on the amendments entered with after final amendment posted on 01/14/2008, to which the examiner addressed arguments in the advisory action mailed 02/05/2008. This rejection includes a new 101 rejection above and therefore the action is non-final. Also the examiner indicated allowable subject matter for the amended claim 16. Turning to the arguments, the examiner reposts the arguments presented in the advisory action and without a response to the advisory to respond to the arguments are simply reiterated.

Applicant argues that Fayan does not teach a graph

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The examiner refers to MPEP 2123 and 2144 that states that an entire reference cited is considered relevant to the rejection and not just the cited sections. In this case the applicant argues that Fayan does not teach a graph that is user selectable. In the previous rejection, page 4, middle, the examiner refers to Para 31-34, which relates to Figure 5. Fayan clearly teaches the user can interact with the graph displayed on the screen. The purpose of interaction is to adjust the speed graph that is applied to a retimed video clip. Fayan specifically states that controls have been provided to allow the user to select a keyframe. Fayan teaches the interface allows the user to select the anchor frame through direct user input to the graph and Fayan teaches the interface provides feedback as to the status of the effect applied to the clip (See Para 34). Therefore, contrary to applicants assertions Fayan shows a user interacting with the graph.

Applicant argues that prior art is not combinable

Applicant further argues that there is no obvious reason to combine Fayan and Kanda because they teach different methods of editing video. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kanda shows a timeline video editor that is common in the art. Fayan suggests that there are various methods to show video editing other than a timeline but if a timeline is used as shown in Kanda, then Fayan suggests that the user interface would be available to an editor if the retiming effect were stipulated and the effect can be applied to the clip on the timeline. Which suggests to one of ordinary skill in the art that the structure of Kanda and Fayan can be combined because Fayan expressly suggests the combination (See Para 0029).

Applicant argues the 101 rejection

In regard to the 101 rejection of claims 41-50, Applicant argues that a GUI is tied to a machine and is useful improvement of a machine and the claims refer to a display area and a selectable graph and thus the claim refers to a machine. The Examiner respectfully disagrees. The claims do not recite limitations to realize the claimed functions of the GUI. The claims refer to software per se. A GUI without the structural components to render the GUI is software and represents an abstract idea without a hardware component to realize the functions of the GUI. MPEP 2106.01 is specific regarding descriptive matter that fails to incorporate the medium

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to which the material is recorded is considered non-statutory subject matter. The Examiner cannot interpret or "read" in structural limitations from the specification and in this case the GUI has been defined to be capable of executing on a computer. However, the feature is not in the claims 41-50. Perhaps this issue can be resolved by simply stating in the claim that the GUI stored on a medium and executed on a processor performs a function. Regarding the amendment to claims 14-16, the rewriting of the claims into independent form changes the scope of the claims that depend from claim 16. Claim 15 now incorporates functional limitations that were not considered previously. While the limitations and the claims are identical and were rejected under 103(a) as being unpatentable over Kanda in view of Fayan in the previous rejection nonetheless the scope has changed and would be something new for the Examiner to consider.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M, W, F 10:00AM - 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven B Theriault/
Primary Examiner

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